ICOM

COMMUNICATIONS RECEIVER

IC-R20

Scan, Monitor, Record — The Pro's Scanner!





2 for 1, Dualwatch receive

Until the IC-R20, the capability of monitoring two frequencies required two radios. Whether you need to monitor local public safety, air traffic control, or at the track listening to two drivers, even the play by play from both the local TV and radio station is possible!



(See specifications for actual frequency ranges for Dualwatch receive.)

Shortwave to microwave, Wideband coverage

The IC-R20 covers 150kHz to 3304.999MHz* in SSB, CW, AM, FM and WFM modes. This covers AM/FM radio and TV broadcasts, wireless communications for boaters, aviation, conventional public safety and many other commercial services.
(* Depending on version, U.S.A. version is cellular blocked.)

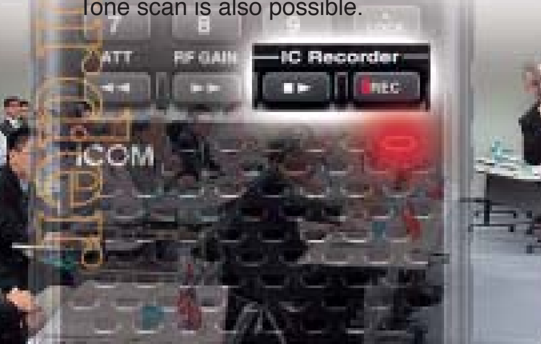
4-hour digital recorder

The IC-R20 has an internal 32MB digital recorder capable of storing received communications. This feature is useful in a variety ways, like recording a wireless microphone audio at a meeting. There is also a USB port to download to a computer for storage or to forward to a friend. (PC playback not possible)



CTCSS, DTCS tone signaling

When multiple users share the same channel, these users use specialized signaling to reduce interference from other users. The two popular signaling formats, CTCSS and DTCS are standard in the IC-R20. Tone scan is also possible.



Alphanumeric memory channels

With 1,000 regular memory channels, 200 automatic memory scan channels and 25 pairs of frequency scan edges, the IC-R20 makes it easy to identify received signals with the capability of programming a name to each channel.

11 hours of continuous receive*

Icom's energy efficient design allows the IC-R20 11* hours of continuous reception from the internal Li-Ion battery pack. Also, the IC-R20 can operate with 3 AA Alkaline cells, or longer operation as well as charging the internal battery pack is possible from either an optional cigarette lighter cable or the supplied AC adapter.
(* Single receive in FM mode, at Max. AF audio.)

See your signals

Sometimes hearing a signal is not enough, so the IC-R20 includes a band scope. The bandscope enables you to see signals around a monitored frequency. An additional function of the bandscope is the ability to hear the signal while sweeping a range, so you can see if the signal is modulated.



Scan features

The IC-R20 is Icom's fastest receiver with 100* channels per second scanning speed. You can tag memory channels into dynamic banks, ranging from Max. 100 channels per bank (Max. 26 banks) as well as link multiple banks for customized memory bank scanning. Additionally, the IC-R20 offers multiple scanning controls such as scan delay, scan resume for received signal notification.
(* In VFO mode.)

Icom Inc.

OTHER FEATURES

- VSC (Voice Squelch Control) opens the squelch only when a modulated signal is detected.
- Offset monitor capability for semi-duplex channel monitoring
- Auto squelch and squelch monitor capability
- Built-in attenuator and RF gain control
- Noise blanker, ANL (Auto Noise Limiter), AF filter
- AFC (Auto Frequency Control) function
- CI-V PC remote control capability with optional CT-17
- Built-in ferrite bar antenna for AM broadcast
- FM earphone cord antenna capability
- Dial speed-up function
- Auto power off and power save functions
- Key lock function
- Rotary selector and up/down buttons are reversible
- Weather channel and weather alert* (* U.S.A. version only)
- Preprogrammed with TV and popular shortwave channels

SPECIFICATIONS

GENERAL

- Frequency coverage : 0.150–1304.999, 1305.000–3304.999MHz*
  (* Cellular blocked in the U.S.A. version.)
  France 0.150–29.999, 50.2–51.2, 87.5–108, 144–146, 430–440, 1240–1300MHz
  Dualwatch VFO A 0.150–469.999MHz (LSB, USB, CW, AM, FM, WFM modes)
  VFO B 118–174.999, 330–1304.999MHz (AM, FM, WFM modes)
- Mode : LSB*, USB*, CW*, AM, FM, WFM (* 0.150–469.999MHz)
- No. of memory channels : 1250 (1000 regular, 50 scan edges and 200 auto memory write)
- Usable temperature range : –10˚C to +60˚C ; +14˚F to +140˚F
- Tuning steps : 0.01, 0.1, 5, 6.25, 8.33*, 9*, 10, 12.5, 15, 20, 25, 30, 50, 100kHz
  (* Selectable depending on operating bands.)
- Battery requirement : BP-206 or 3 × AA (R6) alkaline cells
- External power supply : 6.0V DC ±5% (with BC-149A/D, CP-18A/E)
- Current drain (at 3.7V DC) (Single receive, IC rec OFF) : Rated audio 150mA typ. (Backlight off)
  Standby 100mA typ. (Backlight off)
  Power save 35mA typ. (duty=1:4)
- Antenna impedance : 50Ω (BNC)
- Dimensions (projections not included) : 60(W)×142(H)×34.8(D) mm; 2⅜(W)×5¹⁹⁄₃₂(H)×1⅜(D) in
- Weight (approx.) : 320g; 11.3oz (With antenna and BP-206)

All stated specifications are subject to change without notice or obligation.

RECEIVER

- Receiver system : Triple conversion superheterodyne + down converter
- Intermediate frequencies : 1st 266.7MHz, 429.1MHz, 2nd 19.65MHz, 3rd 450kHz
- Sensitivity (except spurious points; single receive):

Mode	Frequency range	Sensitivity	Frequency range	Sensitivity
FM	1.620– 4.999MHz	0.56μV	5.000– 221.999MHz	0.4μV
(12dB SINAD)	330.000– 832.999MHz	0.56μV	833.000–1304.999MHz	0.71μV
	1330.000–2304.999MHz	5.6μV	2330.000–2999.999MHz	18μV
WFM	76.000– 108.000MHz	1.8μV	175.000– 221.999MHz	1.8μV
(12dB SINAD)	470.000– 769.999MHz	2.5μV		
AM	0.495– 4.999MHz	2.2μV	5.000– 29.999MHz	1.4μV
(10dB S/N)	118.000– 135.999MHz	1.4μV		
SSB, CW	0.495– 4.999MHz	0.4μV	5.000– 29.999MHz	0.25μV
(10dB S/N)	50.000– 53.999MHz	0.25μV	118.000– 146.999MHz	0.25μV
	330.000– 469.999MHz	0.32μV		

- Selectivity SSB, CW : More than 1.8kHz/–6dB
  AM, FM More than 12kHz/–6dB, Less than 30kHz/–60dB
  WFM More than 150kHz/–6dB
- AF output power (at 3.7V DC) : 100mW typ. at 10% distortion with an 8Ω load
- External SP connector : 3-conductor 3.5 (d) mm (⅛″) /8Ω

Supplied accessories *depending on version
● BP-206* ● BC-149A/D* ● MB-98 ● Handstrap ● Antenna

OPTIONS

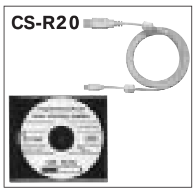
- **BP-206** Li-Ion BATTERY CELL ASSEMBLY
  3.7V/1650mAh Lithium Ion battery pack.
- **BC-149A/D** WALL CHARGER
  6V DC, 1A output AC adapter.
- **BC-156** DESKTOP CHARGER
  Rapidly charges the BP-206 in 2.5 hours (approx.). AC adapter, BC-123A/E supplied with the charger.
- **CP-18A/E** CIGARETTE LIGHTER CABLE
  6V DC, 2A output from 12V cigarette lighter socket.
- **CT-17** CI-V LEVEL CONVERTER
  For receiver remote control from a PC.
- **CS-R20** CLONING SOFTWARE (With USB cable)
  Use a PC to easily edit stored memory channels, recorded contents and receiver settings.
  (Microsoft® Windows® 98/Me/XP/2000)
- **LC-158** CARRYING CASE
  Helps protect the receiver from scratches, etc.
- **MB-86** SWIVEL BELT CLIP
  A fast and easy way to remove the receiver from your belt.
- **MB-98** BELT CLIP
  Alligator type. Same as supplied.
- **SP-13** EARPHONE
  Provides clear audio even in noisy environments.

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BC-156

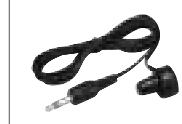

CP-18A/E


CT-17


CS-R20


LC-158


MB-86


SP-13


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